

# The FORCEnet Engineering Conference

## Synchronizing FORCEnet's Engineering Future

By Sharon Anderson and Steve Davis

The first FORCEnet Engineering Conference provided a dynamic collaborative environment for FORCEnet stakeholders and the naval engineering communities to exchange information and "synchronize FORCEnet engineering efforts." The event, sponsored by the Space and Naval Warfare Systems Command, was held in Norfolk, Va., June 28-30. The conference gave working-level engineers and fleet operators an opportunity to meet with program officials, resource sponsors and users in a structured forum.

According to Craig Madsen, technical director for SPAWAR's Office of the Chief Engineer, the conference came at just the right time. *"It became apparent that in the absence of engineering-level guidance from the government, many private activities were attempting to fill the void in engineering detail with their own version of what the Navy means,"* Madsen said. *"This conference and the anticipated follow-on conferences in the FORCEnet engineering series are designed to fill that engineering detail void with an official government position."*

The conference format was a mix of general sessions with featured speakers, panel discussions and working sessions covering all the components of FORCEnet. Broad topic areas included: the FORCEnet Toolset; Engineering-Services-Oriented Architecture Environment; Communications/Networks; Experimentation and Demonstration; Combat Systems/Hull, Mechanical & Electrical Equipment; Implementation/Test/Certifications; Aviation Systems Assessments; and Command and Control (C2).

*"The goals of the initial conference were specifically to bring together and identify the 'FORCEnet engineering community' with the anticipation that this collective community could then get on with the business of realizing the FORCEnet vision,"* Madsen said.

Representatives from the engineering communities for C2; communications; networks; business information technology; intelligence, surveillance and reconnaissance; information operations; assessment and experimentation; human systems integration; and architecture/certification engaged in spirited discussions in the working sessions regarding the future of FORCEnet.

*"Individual working sessions were structured to allow a variety of topics and viewpoints to be presented. Flag sessions were created to allow the senior level FORCEnet vision to be provided to the audience of engineers and program managers. All the major acquisition commands were there to participate,"* Madsen said.

A significant indicator of the conference's success was the strong participation from fleet operators. Their enthusiasm was evident in their interaction with colleagues and Navy and Department of Defense leadership during the working and general sessions.



*SPAWAR Chief Engineer Rear Adm. William Rodriguez, with executive assistant Tricia Ward, welcomes attendees to the FORCEnet Engineering Conference, held June 28-30, 2005.*



*Retired Vice Adm. Jerry Tuttle and Vice Adm. J. Kevin Moran, Commander, Naval Education and Training Command.*

*"The conference was very informative and there were so many great working sessions going on simultaneously that it was hard to choose which ones to attend. At future conferences I look forward to hearing about implementation success stories from many of the ideas discussed,"* said Cmdr. Danelle Barrett, communications officer on the Carrier Strike Group Twelve staff.

Working sessions were led by subject matter experts, program office representatives and resource sponsors. SPAWAR Commander Rear Adm. Ken Slaght said he wanted attendees to "roll up their sleeves" and work on moving FORCEnet forward. Attendees from fleet operators right up to the Department level were eager to do just that.

*"Capt. David Prater (PMW 780, PEO C4I and Space) and his team's brief on the Battlespace Networking Initiative was detailed, informative and clear. It demonstrated that we can work across all the Navy systems commands,"* said Capt. Scot Miller, commanding officer of the Navy Center for Tactical Systems Interoperability (NCTSI), San Diego, Calif.

Another conference success factor was the enthusiastic mix of leadership, users and engineers represented from the Naval Sea Systems Command, Naval Air Systems Command, Naval Network Warfare Command, Marine Corps Systems Command, Defense Information Systems Agency, Program Executive Officer (PEO) Information Technology, PEO C4I and Space, SPAWAR and OPNAV.

*"The right people are in the room,"* said Rick Paquin, head of SPAWAR Systems Center Charleston FORCENet Engineering and Technology Support Branch.

In addition to Rear Adm. Slaght, other featured speakers included Rear Adm. William Rodriguez, SPAWAR Chief Engineer; Vice Adm. J. Kevin Moran, Commander, Naval Education and Training Command; Vice Adm. James D. McArthur Jr., Assistant Chief of Naval Operations for Information Technology and Commander, NETWARCOM; and Mr. David Weddell representing OPNAV N6/7 – Warfare Requirements and Programs. Moderators were retired Vice Adm. Jerry Tuttle and retired Rear Adm. Bob Nutwell.

*"I was impressed with the number of top leadership who came out. They were very approachable when I asked for clarification or additional information concerning anything from the fundamentals to the functional concept of FORCENet,"* said Sandy Mieczkowski, manager for SPAWAR Systems Center (SSC) Charleston Tidewater Node of the FORCENet Composeable Environment.

Participants agreed that the conference gave them a clearer idea of FORCENet's design, purpose and impact. Information from the FORCENet Toolset session included technical and operational views to help the user as well as the engineering community visualize what FORCENet capabilities the Navy envisions.

The toolset includes a collaborative environment, called the Naval Collaborative Engineering Environment (NCEE), which will be used to implement FORCENet engineering practices. The session, hosted by Barbara Vaughn, NCEE technical director, of the Assistant Secretary of the Navy Research, Development and Acquisition Chief Engineer's office, described the roles for key players and milestone events in building and refining the NCEE.

*"The FORCENet Engineering Conference was a great opportunity for sharing FORCENet efforts across our entire community, including C4ISR and combat systems, OPNAV and the SYSCOMs (systems commands), and the acquisition and operational communities of interest,"* said Capt. Cloyes "Red" Hoover, SSC Charleston commanding officer.

The Sea Warrior brief by Vice Adm. Moran was one of the conference highlights. The admiral meticulously mapped out the links between the Navy's Human Capital Strategy, Sea Warrior, Sea Power 21 and FORCENet — the links that lead to warfighter readiness.



*Conference attendee, Capt. Scot Miller, commanding officer of the Navy Center for Tactical Systems Interoperability, San Diego, Calif.*



*Cmdr. John Hearne, Carrier Strike Group Ten (CSG-10) knowledge manager (left) and Lt. Cmdr. James H. Mills, CSG-10 flag communications officer, participated in the FORCENet Engineering Conference.*

Perhaps the ultimate factor to the conference's success was that solid partnerships were formed and conference participants took on a feeling of ownership for making FORCENet a reality.

*"The next conference will continue to expand and build upon the positive relationships built at the initial meeting,"* Madsen said. *"Attendees can be expected to walk away with specific, engineering-level actions for their particular community as they help create the FORCENet vision."*

The next FORCENet Engineering Conference will be held Nov. 15-17, 2005, in San Diego. The theme of the San Diego conference will be "Integrating Interests/Finding Common Ground." The upcoming conference will explore a variety of topics, including interaction at the "joint warfighter tactical edge," data structures used as net-centric warfare doctrine and processes to enhance the capabilities of a fully netted force. Go to <http://www.nconfs.com/fnengineeringconference/index.htm> for information.

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